Raman spectroscopy of carbon monoxide adsorbed on silver island films
I. Mrozek, C. Pettenkofer and A. Otto 192

Photoelectron spectroscopy of silver deposition onto the van der Waals faces of $SnS_{2-x}Se_x$ crystals
C.A. Formstone, E.T. FitzGerald, J.S. Foord and P.A. Cox 199

Interactions of UV photons and low energy electrons with chemisorbed benzene on Ag(111)
X.-L. Zhou, M.E. Castro and J.M. White 215

The adsorption and reactions of NO_2 on the Ag(111) surface. I. XPS/UPS and annealing studies between 90 and 300 K
G. Polzonetti, P. Alnot and C.R. Brundle 226

The adsorption and reactions of NO_2 on the Ag(111) surface. II. Adsorption at 25 K and annealing to 300 K
G. Polzonetti, P. Alnot and C.R. Brundle 237

Molecular beam studies on the laser-enhanced reaction of chlorine with a copper surface at 1064 nm
P.H. Lu, Y.L. Li and Q.Z. Qin 245

Chemisorption of nitrogen on Cu(110): coverage and site determination
A.P. Baddorf and D.M. Zehner 255

$Hg_{1-x}Cd_xTe$ $(0 \leqslant x \leqslant 1)$: a correlation between stoichiometry, surface preparation and electroreflectance measurements
P. Lemasson and C. Nguyen Van Huong 264

Effect of inside-spread surface states on Fermi level pinning
J.M. Palau and M. Dumas 271

Surface valence charge distributions and scanning tunneling microscopy of WTe_2
S.L. Tang, R.V. Kasowski, A. Suna and B.A. Parkinson 280

Field ion microscope studies of submonolayer rhodium films on (110) tungsten and molybdenum surfaces
V.R. Dhanak and D.W. Bassett 289

Electron correlation effects in chemisorption theory at finite submonolayer coverages
R. Taranko, R. Cardenas, E. Taranko and V.K. Fedyanin 293

Kinetic lattice gas model with precursors
H.J. Kreuzer 305

Lattice gas models for multilayer adsorption: variation of phase diagrams with the strength of the substrate potential
A. Patrykiejew, D.P. Landau and K. Binder 317

Chemisorption and magnetization: a bond order–rigid band model
R. Fournier and D.R. Salahub 330

Variational calculation of barriers for metal–vacuum–metal junctions
E. Balázs and L. Orosz 341

Dynamical relaxation of $H_2(v, j)$ on a copper surface. Surface Science 232 (1990) 35. *Erratum*
M. Cacciatore and G.D. Billing 350

Author Index 351

Subject Index 354

surface science

Contents

Volume 238 (1990) Nos. 1–3

Surface Science Letters

Scanning tunneling microscopy studies of polythiophene and poly-3-bromothiophene films
T.L. Porter, S. Jeffers, G. Caple, B.L. Wheeler and R. Swift L433

Effect of electronic states of the tip on the STM image of graphite
N. Isshiki, K. Kobayashi and M. Tsukada L439

Dynamical RHEED from MBE growing surfaces
L.-M. Peng and M.J. Whelan L446

Surface relaxation effects on surface segregation and order–disorder transition temperatures of binary alloys
Y. Teraoka L453

Methanol decomposition on Pd(111) single crystal surfaces
N. Kruse, M. Rebholz, V. Matolin, G.K. Chuah and J.H. Block L457

Temperature effects on the oxidation kinetics of clean and cesiated Si(111) and Si(100) surfaces
M. Tikhov, L. Surnev and M. Kiskinova L463

Hydroxylation of molecularly adsorbed water at Ag(111) and Cu(100) surfaces by dioxygen: photoelectron and vibrational spectroscopic studies
A.F. Carley, P.R. Davies, M.W. Roberts and K.K. Thomas L467

Direct detection of atom vaporization by laser resonance ionization as a probe of gas–surface chemisorption mechanisms
M.H. Mintz, P. Shuker and J. Fine L473

Isotopic substitution evidence against the formation of $(H_3O^+)_{ad}$ from coadsorption of hydrogen and water on Cu(110)
J. Schott, D. Lackey and J.K. Sass L478

Ordering and layer composition at the $Cu_3Au(110)$ surface
E.G. McRae, T.M. Buck, R.A. Malic, W.E. Wallace and J.M. Sanchez L481

Surface Science

The adsorption and thermal decomposition of PH_3 on Si(111)-(7 × 7)
P.A. Taylor, R.M. Wallace, W.J. Choyke and J.T. Yates, Jr. 1

Spectroscopic studies of the thermal modification of the Fe/Al_2O_3 interface
M.L. Colaianni, P.J. Chen and J.T. Yates, Jr. 13

Interaction of oxygen with Si(111)7 × 7 and Si(100)2 × 1 surfaces modified with small amounts of Cs
M. Kiskinova, M. Tikhov and L. Surnev 25

Products of thermal decomposition of triethylgallium and trimethylgallium adsorbed on Ga-stabilized GaAs(100)
V.M. Donnelly and J.A. McCaulley 34

Ga adsorption on Si(111) analysed by in situ ellipsometry: 2D and 3D growth
S. Andrieu, F. Arnaud d'Avitaya and J.C. Pfister 53

AES and EELS study of alkali-metal adsorption kinetics on either cleaved or sputtered GaAs and InP(110) surfaces
S. Valeri, M. Lolli and P. Sberveglieri 63

CO disproportionation over supported Pd particles: a TPD and static SIMS study
V. Matolín and E. Gillet 75

Interaction between hydrogen atoms near a Pd(001) surface: the electronic structure
L. Stauffer, R. Riedinger and H. Dreyssé 83

Interaction of water with a Pd(110) surface, studied by thermal desorption spectroscopy, LEED and $\Delta\phi$
J.-W. He and P.R. Norton 95

Monotonous concentration profile and reconstruction at $Pt_{80}Fe_{20}(111)$: LEED study of a catalyst
P. Beccat, Y. Gauthier, R. Baudoing-Savois and J.C. Bertolini 105

An efficient method for LEED crystallography
G. Kleinle, W. Moritz and G. Ertl 119

High-resolution profile imaging studies of sulphur overlayers on platinum {100} surfaces
J. Uppenbrink, A.I. Kirkland, D. Tang and D.A. Jefferson 132

Coverage- and potential-dependent binding geometries of carbon monoxide at ordered low-index platinum– and rhodium–aqueous interfaces: comparisons with adsorption in corresponding metal–vacuum environments
S.-C. Chang and M.J. Weaver 142

Photoemission study of Pt adlayers on Ni(111)
M. Romeo, J. Majerus, P. Légaré, N.J. Castellani and D.B. Leroy 163

Adsorption and desorption of CF_3I on Ru(001)
J.S. Dyer and P.A. Thiel 169

Cyclic ethers adsorbed on Ru(001)
M.M. Walczak and P.A. Thiel 180

Surface core level shifts on $CdS(10\bar{1}0)$
S. Wiklund, K.O. Magnusson and S.A. Flodström 187

Contents continued on inside cover